P50
22

With the Compliments
of the Author.

THE BENEFITS

OF A

BANK-NOTE CURRENCY

By CHARLES A. CONANT,
AUTHOR OF "MODERN BANKS OF ISSUE."

Reprinted from THE BANKERS' MAGAZINE, *February and March, 1900.*

NEW YORK:
BRADFORD RHODES & CO.,
78 WILLIAM STREET.

LIBRARY OF
THE REFORM CLUB
SOUND CURRENCY COMMITTEE,
52 William St., New York.

THE BENEFITS OF A BANK-NOTE CURRENCY.

Having sketched the origin and development of bank notes and defined their functions and qualities,* it is proper to consider their benefits to the community. Some of these benefits are those which naturally arise from the banking function in concentrating and distributing capital without the power of note issue. This power, however, greatly quickens and promotes the process of bringing capital into active use, especially in communities where credit is not well developed, and where a sparse population renders banks less accessible than in commercial centres. The bank note economizes the use of metal, and to this extent diminishes the amount of real capital required for the circulating medium. Bank notes issued under such conditions constitute a loan from the public to the banker, but compensate the lenders by affording a convenient medium of exchange. The benefits of the public are not limited to the mere convenience of the paper in comparison with coin, but include a share in the lower discount rates and greater facilities extended to commerce by the capital saved for productive purposes by the economy of the metals. The note-issuing function, moreover, affords a method of introducing other forms of credit, and thus by degrees extends to an undeveloped country all the benefits of the modern credit system. These advantages of bank-note issues may be set forth with more precision and detail under the following heads:

1. Economy of the precious metals.
2. The accumulation and distribution of capital.
3. The reduction of the rate for the rental of money.
4. The adjustment of the currency to business needs.

I.—ECONOMY OF THE PRECIOUS METALS.

The issue of bank notes, even where they are protected by large metallic reserves, results in a considerable economy in the use of the precious metals and in the cost of handling money. In so far as a paper medium of circulation will do the work of money, without involving any question as to its safety and exchangeability, the community gains by the amounts of the metals thus economized. A gold currency is a costly investment, which can be afforded only by countries having saved capital beyond the amount required for maintaining the machinery of production, the purchase of raw materials, and the expense of distribution. The law of marginal utility will almost inevitably reduce a poor country to the lowest minimum of metallic money required for exchanges and even below the minimum of convenience, because its available capital will be required for the material and machinery of production.

To reduce this argument to its simplest terms, it is obvious that a primitive community, which was barely able by all the efforts of its members to obtain their necessary food, could not employ any part of its energy or set aside any part of its products for the purpose of obtaining clothing and shelter. When there came to be a margin of producing capacity, which gave additional purchasing power, clothing and shelter would be the first objects for which this power would be exerted. In a more advanced community, a medium of exchange would be found highly desirable, but if such a medium required the expenditure of labor, like the mining of gold or silver, the labor required would be devoted to this purpose only after the necessary requirements for food and the minimum requirements for clothing and shelter had been complied with. In a community still further developed, where organized industry existed, the necessity for a medium of exchange would be so pressing that a small portion of its capital would probably be invested in this direction, even while the machinery of production and distribution was incomplete. There would be, however, a constant tendency to reduce this medium of exchange to a minimum and to part with it to other communities in exchange for the tools of production and the comforts of life. By the law of marginal utility the individuals of the community would exchange the products of their labor, first, for the most necessary articles, and then by a graded series of steps, for articles having successively lower degrees of utility.

---

* *Vide* "The Principles of a Banking Currency," BANKERS' MAGAZINE for May and June, 1899.

An alternative resource is open to communities whose producing power is on the margin of the capacity for investing capital in a metallic currency. This resource is the employment of paper credit. The tendency to devote saved capital to the increase of the goods necessary for comfort and for effective competition with other communities, is so persistent that in a community whose saved capital is close to the margin necessary for these purposes, there is a constant substitution of paper credit for metallic money up to the margin of safety and even beyond this margin. This tendency is aided by the demand for notes as a tool of exchange, which keeps them in circulation even when the security for them is not of the best. This is the explanation of the abuse of banking credit in comparatively poor communities. How this condition was brought about in the early history of the United States is thus set forth by Prof. Newcomb: *

> "In new countries where the rate of interest is high and the demand for loans great, the temptation is much stronger than elsewhere. Thus arose the 'wildcat' banking which was so prevalent in our new States during their early history. When a 'wildcat' bank was established, its practice was to loan its own notes on interest. The banker knew that there was little immediate danger of these notes coming back in great numbers, because the community was too much in want of them as money. He was, therefore, tempted to loan them on insufficient security, especially as good security was difficult to obtain under the circumstances. If he could induce his customer to carry the notes to a great distance, the danger of their being returned for payment became still less. So long as people would take his notes, he was thus enabled to draw a high rate of interest on a very small capital."

The safeguard against such abuses is the adoption of a prudent banking policy, either by union among bankers or by the mandate of law, which shall not permit the metallic resources of the country to fall below the margin of safety. There is no reason, when this margin is ascertained, with a proper excess for emergencies, why the economy of paper credit should not be availed of to the entire amount consistent with this condition. Such a policy has the

---

* "Principles of Political Economy," p. 171.

advantages of affording a country the most effective and economical use of its saved capital. The bank note, although it has been the most useful form of paper credit in poor communities, is the only form which has become a subject of serious controversy, because it has not always been employed with moderation and skill. In its essence, however, the bank note involves no greater danger in use than checks and deposit accounts, and still less danger when surrounded by the safeguards which have been provided in modern commercial States in order to permit its circulation as a substitute for money.

Benefits of an Efficient Currency in Foreign Competition.

It is not merely a local advantage that a country should have an economical circulation. It may directly affect the competition of one nation with another. Assuming that this rivalry is reduced to the closest conditions, it is obvious that the economy of the currency may play the same part in facilitating competition as economy in any part of the machinery of production. A nation which used old and cumbersome woolen machinery could not successfully compete in the world's markets with one which used the most modern and efficient machinery. Other things being equal, a nation which unnecessarily invested a large part of its capital in a costly and cumbersome tool of exchange, could not compete upon favorable terms with one which adopted the most economical means of exchange. Undoubtedly the most economical means includes the safest means, but this safety need not be carried to excess in respect to the currency any more than in the case of machinery, which might be made unnecessarily cumbersome with the object of preventing breakdowns. The disadvantage which might result from an excessive investment of capital in currency becomes obvious if one considers how much capital would be required if the United States or any other country should decide to abolish all forms of banking credit as well as note issues. If every transaction had thus to be settled in coin instead of by checks and commercial bills, the entire savings of the country for several years would have to be applied to the acquisition of a sufficient supply of metallic money to the impoverishment of every other part of the machinery of competition. It is obvious that the country adopting such a policy would soon cease to be a serious competitor of the well organized industrial nations.

So far as note issues exceed the metallic reserves held for their protection, they may be considered as an economy of capital. This economy is multiplied many times when the cost of the original investment in a gold currency is supplemented by consideration of the annual interest charge upon it. The cost of maintaining £95,000,000 in gold, silver and copper money in circulation in Great Britain in 1876 was estimated by Mr. Jevons at £2,972,000 ($14,500,000) annually, of which £2,850,000 was for interest upon the principal a the rate of three per cent.* The annual average circulation of European bank of issue in 1898 was 14,668,000,000 francs, which was protected by a gold reserve of 8,182,000,000 francs, leaving an uncovered circulation of about 6,500,000,000 francs ($1,200,000,000). The interest upon the latter amount at three per cent. would amount to $36,000,000 a year. This is a material saving of capital for application to productive industry. The excess of uncovered note issues was much larger a score of years ago than at present, but the great surplus of saved capital in recent years, and the extension of other forms of credit, by the growth of banks of discount and deposit, have permitted a large investment in the gold supply from the mines without a corresponding extension of credit in the form of notes.

---

* "Investigations in Currency and Finance," p. 296.

A considerable saving is obtained from the use of a bank-note currency in a more modest way, even where the volume of notes does not greatly exceed the metallic reserve. This saving results from the fact that the use of paper certificates in ordinary circulation avoids the wear of the metallic pieces. The loss by wear upon a gold currency is very considerable where it is in actual use as a medium of exchange. The coins surrendered by the Bank of England to the British mint for a period of about four and a half years, from March, 1893, to September 30, 1897, included coins under the legal limit of weight showing a loss of 134,294.8 ounces, or at the mint value a loss of £522,910 ($2,500,000). This represents a loss of about $500,000 per year upon the coins passing through the Bank alone.* A portion of this loss is paralleled by the cost of printing and handling a paper currency, but on the other hand a small gain accrues to the issuers by the losses of such currency.

Bank notes do not cease to have a high degree of usefulness, even in communities which have an ample supply of saved capital for investment in a metallic currency. The extent of the use of notes under such circumstances depends to some extent upon the customs of the community, but the notes are more readily transferable than coin, and when exchanged in large amounts between banks and their correspondents cost much less for carriage.† The practical benefits of handling notes instead of coin were set forth in a forcible manner in a letter written in 1841 by Roger Aytoun, Esq., manager of the Renfrewshire Bank at Greenock, at the time of the proposals to abolish notes for £1 in Scotland. Mr. Aytoun said upon this point : ‡

> "At present the business of the Highlands is transacted by means of bank notes of £1, with some larger notes on occasions, and that with the greatest facility. Cattle dealers, and all others having to pay away money to any amount in small sums to a number of people, as in the instances mentioned, prepare themselves by a mixture of notes, some large and some small, accompanied by a few pounds of silver, and everything goes on well. These notes are preferred by the country people before gold, both because they are unable to distinguish between the genuine and base metal, and because coins are more liable to be lost from their pockets than notes; and they have no reason to repent their confidence in the stability of those banks whose notes they have been accustomed to receive for so many years in their transactions. But if small notes are superseded, and gold substituted, it is not easy to see how the supply of gold is to be kept up to carry on the business and transactions of this country. Should a quantity of it be received into the circulation, it would not remain long, but find its way into the banks, who will not give it out again in bills as

---

* London "Economist" (July 15, 1899), LVII, p. 1012. The British Government, by the coinage act of 1891, established a coinage fund of £400,000 to cover the cost of the restoration of the gold currency. This fund, with the accumulated interest, was nearly exhausted by the operation of 1898, but was increased by a further charge upon the public revenues under an act of 1893.

† It is a regular practice of the interior banks of the United States to direct the deposit of gold by their New York reserve agents with the sub-Treasury of the United States in New York, in exchange for the shipment of notes from Washington to the interior point where they are desired. This method is always preferred to the shipment of gold from New York, because the express rates upon gold are nearly double the rate upon notes. The bankers' express rate, for instance, from Washington to St. Louis in 1899 was $1 per $1,000 on gold, while the rate on currency was only sixty cents per $1,000. Such shipments of currency against deposits of gold in New York were $19,718,000 in the fiscal year 1898.

‡ Gilbart, "The History, Principles, and Practice of Banking," II, p. 222.

they do their notes, and it will immediately become a scarce article in the country. A person, then, having to pay in small sums, will on every such occasion be obliged to send his large notes to the bank that issued them, perhaps a hundred miles off, to receive gold and silver in their place, to answer his purpose."

II.—THE ACCUMULATION AND DIFFUSION OF CAPITAL.

One of the great benefits of a banking currency is its service in the accumulation and distribution of capital. This benefit is in some degree the consequence of all banking operations, which attract into the custody of the banks the scattered savings of the community. The progress in this concentration of saved capital in hands which render it productive has been marked within the past century. The savings of capital themselves have greatly increased, partly as the result of the increased productive power derived from the use of machinery, but largely also from the stimulus to saving afforded by modern banking methods. The Savings banks and stock exchange securities have become to a large extent the reservoirs of these savings. These institutions are not closely related to the functions of note-issuing banks, but the preliminary education in the use of banking credit which led to savings deposits and investments in securities was afforded by these issuing banks. The bank note is the form of credit which under certain conditions is most convenient and performs most efficiently the work of saving the use of metallic money. To quote from the exposition of the Monetary Commission (p. 16):

> "A borrower at a bank will usually ask for that means of payment which his situation and the business habits of his community demand. If he cannot get it in that form, his loan is ineffective. Hence the habits of the community determine which form of liability the bank will make use of; it is not determined by the will of the bank. If the latter is not able to conform to the business habits of its customers it cannot loan in that district. In the interest of borrowers, therefore, a proper banking system should be so ordered that it can adjust itself to the needs of its constituency. If banks are given perfect freedom in conducting their business, whether they issue notes or not is a question merely of convenience to their customers; to a large city bank the privilege of issuing notes is of almost no advantage."

Banks having the power of note issue have been, therefore, the pioneers of credit in their respective localities. They have made the owners of capital familiar with the note-issuing system, which required only passive action, and have paved the way for other systems of credit which appealed to the direct initiative of the small capitalist. The operation of this tendency is thus described by Prof. Leroy-Beaulieu: *

> "It has been demonstrated by experience that the issue of bills, when they have been made under regular conditions, has served in a notable manner to render a banking system popular and to spread banking operations among the public, not so much by the advantage resulting to the banks by the absence of interest on the sums which they procure with their issues, as by the general notoriety given to their establishments, the confidence which the public place in them when they hold their obligations, and the habit which they acquire of recurring more and more to their aid for the various operations of payment and collection."

The issue of notes which pass into general circulation permits an extension of credit in a community which might not be possible if there was only a metallic currency. The manufacturer who is able to borrow notes from a bank in the course of his commercial business, which are accepted by his

---

* "*Traité d'Économie Politique*," III, p. 474.

employees and pass into general circulation, thereby aids the bank in borrowing the capital of the community without obtaining it by direct deposit. The holder of a bank note under such conditions has in a sense lent his capital to the bank in return for a printed promise to pay money, but he is not a loser by the transaction, since the promise serves all his purposes as a medium of exchange with the same efficiency as metallic money. If he considers the substitute less efficient, it is within his power to demand the fulfillment of the promise by presenting the note for redemption in standard coin. The holder of the note, indeed, so far from suffering by lending his credit to the bank, is a partner with the whole community in the benefits derived from a larger medium of exchange than would be available if bank notes were not permitted and in the increased activity of business transactions which such a medium of exchange allows.*

This increased activity of business transactions is one of the natural results of the transferability of capital which is promoted by the banking system. The power to issue notes increases the ability of the banker to aid new industries and to keep production in useful channels. It is the banker largely who determines the direction of industry by his willingness to make loans to industries which are profitable because they are meeting a demand and by his withdrawal of loans from industries which are ceasing to be profitable because of overproduction and diminished demand. How this process operates is thus set forth by Mr. Bagehot: †

> "It is the money-lender in a primitive community whose capital is first transferred readily from occupation to occupation. Suppose a new crop, say cotton, becomes suddenly lucrative; immediately the little proprietors throng to the money-lender to obtain funds to buy cotton; a new trade is begun by his help, which could not have been begun without him. If cotton ceases to be a good crop, he ceases to lend to grow it."

ADVANTAGES OF A BANKING CURRENCY TO THE WAGE-EARNER.

The freedom of bank-note issues is of more direct advantage in some respects to the wage-earner and small trader than to the manufacturer and capitalist. The latter classes are able to conduct most of their operations by means of other forms of credit and with only a limited use of bank notes. Their individual credit is of such a character that their checks and promissory notes serve the purposes of a medium of exchange in their larger transactions. To this extent these instruments take the place of credit in the form of notes, because their credit is well known and commands sufficient confidence among those to whom these instruments are tendered. The bank note, as Leon Say declared in a debate in the French Senate in 1884 on the renewal of the charter of the Bank of France, "is the deposit account of humble citizens and small merchants. The rich obviate the use of money by taking a check book; the humbler citizen deals in a sort of deposit account on the bank by taking its bills." ‡

The essential benefit of a bank note to the wage-earner or farmer over other forms of credit lies in the fact that he can exchange it almost anywhere for what he wishes without discount. A wage-earner who is paid weekly or monthly earnings in a single check often has difficulty in converting it into money in a community where currency is scarce, even though the maker of the check is well known and of unquestioned credit. A small commission is likely to be charged by any storekeeper to whom the check is tendered in payment for the necessaries of life. The situation is still worse for the wage-earner if he obtains only an open credit at the store, whether in return for a check or whether the store is kept by his employers. He is by this mechanism deprived of freedom in the expenditure of his earnings, and has to pay whatever prices are charged him for goods. By this process country stores and company stores are likely to collect what is really a banking charge, where regular banking facilities are deficient, but which is much larger than would be collected by an organized bank. The absence of proper credit facilities, including especially the issue of bank notes, has imposed heavy charges upon the farmers in the southern parts of the United States and in other countries. The lack of credit facilities has even changed the direction of agriculture in many of the Southern States and has depressed the price of cotton. Cotton is the most negotiable commodity of the Southern farmer, because it is the most certain crop and can always be sold at a price, even when prices are depressed by the excessive supply. When the Southern farmers at the close of the Civil War found themselves without money to buy seed and tools for resuming production, they obtained advances from the storekeepers and merchants in the market towns upon their growing crops, but these advances were made only upon cotton crops. The farmer thus bound himself to the storekeeper, to buy everything at one place without regard to the price and bound himself to raise cotton, however excessive the supply and however much the price might be depressed. The process is thus described by a writer who has investigated the subject:*

---

* "The entire community is enabled to profit by that which tends to facilitate exchanges and circulation. If the founders of a bank are the first, perhaps, to benefit by their creation, the durable success of such an establishment is possible only so far as the public finds an advantage in it, as the bank responds to a real need and well fulfils its office."—Horn, p. 440.

† "The Transferability of Capital," Works, V, p. 297.

‡ Arnaune, p. 324.

> "The merchant consented to advance to the farmer, be he owner or tenant, the provisions, implements, seed, farm animals and other requisites for making a crop, provided the farmer would consent to plant his cultivated land in cotton, to give to the merchant a mortgage or lien on his crop to the extent of his purchases, and pay for these supplies in cotton when the crop was harvested. The cotton prices of the merchandise thus advanced were usually from twenty to sixty per cent. higher than the cash prices of the same articles. But for the farmer there was no alternative. He was glad to accept credit upon even such unfavorable terms, trusting that a high price of cotton would enable him to repay his indebtedness and free himself from the necessity of securing loans in the future."

The Emancipation of the Farmer.

This serfdom to the storekeeper would have been remedied to a large extent if the first loan had been made with bank notes, which gave their holder the power to make purchases wherever the notes might be accepted. A sufficient supply of circulating notes in a community means that the man of small means, whose transactions are mostly for cash, escapes the payment of high commissions to storekeepers, because he receives compensation for his goods or services in a form of credit which is readily exchangeable. If the use of capital is obtained in any form by the individual, it is desirable that it should be in the form most useful to him. For the rich man, as pointed out by M. Say, the check book constitutes such a medium; for the wage-earner and man of small means the bank note is more convenient, useful and beneficial. The same distinction lies to a large extent between the city man and the country man. As stated by Mr. Hammond:*

---

*M. B. Hammond, "The Southern Farmer and Banking Reform," "Sound Currency" (December 1, 1898), V, p. 379.

> "The city dweller is content to have his loan in the shape of a transfer of credits on the bank's books, in such a way as to permit him to check against the account. He has no use for currency except to make minor payments. But the average farmer does not use checks to any considerable extent. He desires cash in exchange for his produce and he expects to pay cash when making his purchases."

The fact that the bank note constitutes a loan from the public to the bank is sometimes made the basis of the argument that the profit derived from this loan should go to the government, representing all the people, rather than to an individual banker or corporation. This argument ignores the utility of the banks in affording reservoirs of credit and channels for its distribution and in meeting the costs of providing the medium of exchange. † The government cannot distribute credit except through the instrumentality of a bank, and most governments have failed disastrously when they have undertaken to do a banking business.

III.—Reducing the Rate for the Rental of Capital.

The economy in the use of precious metals, and the concentration of small private capitals which result from a liberal system of bank-note issues, yield an important profit to the community. This profit would inure in the first instance to the banker, who by the note-issuing system obtains the use of private savings at small cost, if he was not compelled to share it with the entire producing community under the law of competition, which tends to bring to a level the profits in all enterprises. Under the operation of this law the profit resulting from the economy of the metals and an adequate medium of exchange is distributed in such a manner that hardly any member of a producing community fails to receive some share. This is the case with any mechanism which saves labor and capital, even where the device is a patented monopoly. Such an article cannot be disposed of for profit unless the price affords a saving to the users of it. Much more is this the case when competition is open to all comers having circulating capital, as under the operation of a liberal banking law.

It is worth while to examine somewhat more minutely the process by which a bank-note currency benefits the banker and reduces the cost of management of all industries. The banker who keeeps afloat a given volume of notes borrows the amount without interest from the public. He can grant applications for loans only by the possession of capital or the control over it. If he receives large deposits, they provide sufficient capital for making all the loans which are asked of him. If deposits are not received in any considerable amount, either because of the lack of surplus capital in the community or the lack of education in the use of banking facilities, the banker is without any resources for making loans beyond the amount of his original capital. If, however, he has the power to issue notes which are accepted by the public, he can extend his loans to the limit of his power of note issue under the law or under the rules of prudent banking. Such notes only represent another form of credit from that brought to the bank by the producer or trader in the form of commercial paper. It is when the trader is able to pay out these notes for capital or services that they are converted, in a sense, into a loan of capital from the public to the bank.

---

* "Sound Currency" (December 1, 1898), V, p. 378.

† Prof. Nitti says of the note-issuing banks, "not only do they carry on gratuitously great part of their operations, not only are they exposed to the risks and losses of ordinary banks of discount, but, if their organization is not perfect, they run much more considerable risks, considering their large scale of operations."—*Revue d' Économie Politique*. (1898), XII, p. 393.

The community by the process of bank-note issues obtains the use of a sufficient supply of the tools of exchange without sending abroad capital to the full amount of these tools. It is able by this means to exchange its products for others which are more beneficial than coined money. The amount which might originally have been invested in a metallic currency remains permanently available for increasing the machinery of production, acquiring a larger supply of raw materials, and producing a larger quantity of finished goods. The paper medium of exchange thus affords a sufficient currency, where one could not be obtained in the form of metallic money, or could be obtained only by serious sacrifices. The tool of exchange is the vital representative of circulating capital. The circulating capital of the community is enlarged by the issue of bank notes—not because bank notes are the creation of capital, but because they give mobility to capital which would otherwise remain in fixed form, or be in such minute subdivisions in the hands of individuals as not to be available for the processes of production. Thus, at low cost, the bank appropriates to its use the scattered capital of small holders and places it at the disposal of the community. How essential it is that this should be done under the fewest possible restrictions is thus pointed out by Prof. Nitti:*

> "If the credit circulation partially replaces the metallic circulation, it is because it costs less. If the cost of production is artificially enhanced, the advantage which might result from it is reduced or suppressed. It is so much the more harmful, since it is the mass of the users of credit—that is, the mass of the public—who benefit by every reduction."

If an adequate mechanism of exchange is obtained for one-quarter or one-half the investment of capital which would be required for a metallic currency, it is obvious that a material saving has been made. This saving is likely to prove in practice, even if the proposition cannot be demonstrated mathematically, much more important than an equal saving in any other form of capital. The tool of exchange is so important to the successful workings of the other parts of the industrial mechanism that a deficiency of it is likely to hamper all branches of industry and a sufficiency to stimulate them into increased producing capacity. When, therefore, a bank-note currency permits an increased offer of the tools of exchange to those who desire to obtain them, the effect upon the rental value of money is plainly felt. This value is determined by the comparison of the supply of the medium of exchange with the effective demand. The effective demand consists of the commercial paper whose owners can afford to pay the rental prices of money, as expressed by the discount rate. This demand must necessarily be shut within narrow limits where the discount rate is so high as to detract materially from the profits of commercial operations. The holder of commercial paper may prefer to go without the quantity of the tool of exchange which would be useful to him rather than pay the rental price fixed by the supply.

---

* "*Revue d'Economie Politique*" (1898), XII, p. 821.

His rates of commercial profit may not enable him to pay for a sufficient supply of the medium of exchange when the amount is small and the price is high.

The rental price of money responds, like the price of other goods and services, to the law which Ricardo applied only to the products of agriculture, but which has been found to be an almost universal law of economics—that the price of the entire product or service is fixed by the price at which the last increment of the goods can be produced, or the last increment of service rendered at a profit. Competition among the owners of the supply of money attracts borrowers to those offering money at the lowest rate, in just the same manner as competition among dealers in wheat attracts purchasers to those offering wheat at the lowest price. The effort to maintain a higher price in either case than that fixed by the average profits upon invested capital, other elements in the problem being given due weight, would attract many competitors, but would in the case of money tend to dry up the sources of banking business.* Competition leads each banker who controls a part of the supply to underbid his competitor in order to earn a profit by putting his commodity to use. The fact that this competition is closer and more acute in the case of circulating capital, as represented by the tool of exchange and the command over credits, than in the case of most other commodities, is indicated by the rapid changes in the rates charged for money in organized money markets. These rates sometimes rise in periods of stringency to thirty or forty per cent. a year, but fall within a few days to four or five per cent. when the demand is relaxed and the supply increases. Each owner of circulating capital or each banker who controls it begins to lower his rental price when he finds that his supply is not absorbed by the effective demand at prevailing rates.

It is obvious, therefore, that with a given demand in the form of commercial paper and other legitimate appeals from borrowers, an increase in the supply of circulating capital by a device which converts into such capital the scattered resources of individuals must produce a marked decline in its rental price. If this increased supply brings down the rental price to a point which greatly increases the demand, one of two classes of benefits, and probably both, must result for the community. If producers and traders are able to borrow who were not able to do so before, their productive capacity will be materially increased and their benefits will be distributed over the whole community through the payment of wages, increased purchases of materials, and the exchange of their products for increased quantities of foreign products. If, on the other hand, it be assumed that no new class of borrowers comes into the field, and that the increased supply of the tools of exchange is available only for the use of the original number of borrowers, they will obtain the use of the medium at a greatly reduced cost. Their productive power and profits will be so increased that a portion can be spared for investment in a metallic currency, if it is needed. The more probable result, representing the leveling effects of several causes, is that industry will be stimulated, that the reduced rental for circulating capital will afford the means of production upon a larger scale to an increased number of borrowers, and that the enlarged profits of the community will afford a surplus for obtaining sufficient metallic currency to form the security of additional note issues to meet the expanding needs of business, without the sacrifice which would be involved in the attempt to maintain a currency consisting purely of metallic money.

---

* "If the money obtained by discounts was obtained at a price superior to the mean of the profits of all transactions, there would logically be no more commercial transactions, or rather there would cease to be recourse to the bank. Hence, in an ideal *regime* of the economy of credit, *the maximum limit of the rate of discount is determined by the average of profits."—Nitti*, "*Revue d'Economie Politique*" (1898), XII, p. 377.

Circulating capital is the most mobile form of wealth. According to the maxims of political economy, it should flow so freely from the point where its rental is low to the point where its rental is high that only trifling differences should exist in any part of the world. This absolute fluidity is not realized in fact because of the friction which attends the movement. There are different degrees of safety in making loans in different communities which affect the rental price of money, there are costs of transportation, and there are differences in the notoriety of credit even where the credit itself is equally good. Perfect freedom of movement on the part of circulating capital is hampered also by customs laws, by commissions and profits charged by brokers and bankers, and many other influences. Between two organized markets the difference in the rental price of money should vary only by the cost of transferring gold, but even this difference is subject to modification by losses of interest in transportation, the alarm or confidence caused by political events, the hopefulness or doubts of lenders, and by the facility for converting fixed into circulating capital.

Needless Restrictions on Banks are Taxes on the People.

These differences in the rental price of money are greatly increased when that freedom which is often assumed for the operation of economic laws is hampered by legal restrictions upon the issue of credit. If the use of checks was taxed ten per cent. in the commercial centers, and no other forms for transferring the titles to money were equally convenient, the rental price of circulating capital would be increased and its movements would be greatly hampered. Prohibitions upon note issues destroy in the same manner the most convenient mechanism of credit in country districts, where the deposit system has not obtained a footing or where banking offices are not conveniently at hand.

That the absence or the severe restriction of the note-issuing function has increased the rental price of money is plain from comparison of the banking history of different countries. In England, where the restrictive policy was adopted in 1844, the discount rate was changed 330 times from 1844 to 1890, while at the Bank of France it was changed only 110 times.* The autumn months called almost invariably for an advance in the rate of the Bank of England because of "the dispersion of money in wages during the summer, and the absorption of money and capital in buying up the produce of the harvest."† No provision for relieving this demand by note issues is made by the English banking law and every unusual demand for currency has to be met by an increased investment in metallic money, often at heavy cost to the producers of the country. In Germany high discount rates became the rule at the Imperial Bank as soon as the business of the country grew up to the limit of note issue fixed by the law of 1875. The average rate was under three and a half per cent. from 1891 to 1895, but rose to 3.66 in 1896, 3.806 in 1897,

---

* Nitti, *Revue d'Économie Politique* (1898), XII, p. 383.

† Jevons, "Investigations in Currency and Finance," p. 172.

4.267 in 1898, and 4.98 in 1899. Much worse is the situation in the United States, where the rates in the rural districts have often stood at ten or twelve per cent. That this is not a necessary condition of new countries is shown by the conditions in Canada, which possesses an economical banking currency.

The fact that the returns upon circulating capital differ so widely in different communities seriously impairs the efficiency of the whole economic system. A high rate for money in a given locality indicates that not all of the circulating capital which could be profitably employed is obtainable. The community is not able to invest the capital required in a costly tool of exchange and is not able to pay the rental price for borrowing an adequate supply. Industry is therefore hampered, because its tools are abnormally costly. The differences between the compensation earned by different industries and between different communities indicates a lack of efficiency in the distribution of industry, a deficiency in the maximum product which might be obtained under a proper organization, and a disadvantage in competition with better organized communities. As the proposition is reasoned out by Prof. Von Wieser:*

> "Uniformity in the percentages of increment, and a uniform rate of interest, are, where they exist, proofs, economically speaking, of a well-balanced distribution and disposal of capital. They are proofs that the economically indicated limits of the employment of capital are everywhere equally respected; that nowhere is there any falling short, and nowhere any overstepping of them. In the principle which demands that the employment of capital shall be guided by the rate of interest, and that all employments which fail to return the customary interest be left alone, we find the marginal law brought into one common expression as regards all the different forms of capital."

IV.—The Adjustment of the Currency to Business Needs.

The greatest benefit of a banking currency, derived in some measure from the functions already ascribed to it, in the economy of the precious metals and the accumulation of credit, is in keeping the volume of currency constantly adjusted to the requirements of production and trade. This adjustment to business needs, coupled with the necessary condition of security, should be the object of every sound monetary system. A bank-note currency is especially fitted to fulfill this object, because it is based upon business transactions. A bank note, when issued in pursuance of legitimate banking business, is the offspring of a credit operation. The issue and retirement of notes is the consequence of business transactions and not the cause.†

Let it be assumed, for the sake of simplicity, that there are no other forms of credit than the discount of commercial paper by the banks and the issue of bank notes, and that all business is done by means of discounts, bank notes and coin. If a loan is made to a trader, which is issued to him entirely in bank notes, he is compelled upon its maturity to find a sufficient amount in bank notes to pay back into the bank the sum borrowed. If there were but few transactions the fluctuations in the volume of notes in circulation would respond visibly to the loans and the payments as they occurred. When a bank is making loans daily to a great number of persons, the effect of a single loan may not be obvious and striking upon the number of notes in circulation. The notes pass into many hands, but if notes and standard coin constitute the sole medium of making payments, a merchant having a loan to repay must surrender to the bank as many notes as he originally obtained or an equal amount in coin. In the one case, the outstanding debts of the bank are reduced by the withdrawal of the notes, which are the printed promises of the bank to pay coin on demand. In the other case—payment in coin—the outstanding debts in excess of the reserve are reduced by the deposit of a quantity of coin fully covering the amount of the loan and capable of redeeming in full the notes which may be still outstanding.

---

* "Natural Value," p. 143.

† "The issue of bills in connection with loans for short terms and made rigorously convertible is only the effect of transactions and not the cause of these transactions."—Juglar, p. 211.

The operation of a banking currency under such conditions results in the automatic adjustment of the amount to the needs of the business. If the number of business transactions is large, many bills of exchange are brought to the bank and many notes are issued. A large volume of business transactions usually implies increased employment for labor and larger payments for wages and in retail purchases, requiring an increased supply of the circulating medium. A larger volume of notes is absorbed at such times than in times of dull trade. If business transactions become less numerous, the paper presented to the bank for discount becomes less, fewer notes are issued, and the retirement of the outstanding notes takes place as traders having commercial bills to meet from day to day pay notes for them into the bank. With many transactions consummated daily, the volume of a banking currency is thus kept in close relations with the needs of business. If the number of notes in the hands of the public becomes excessive, they may prefer to exchange them for standard coin by presenting them for this purpose to the bank. They will be led naturally to make such exchanges if the excess of the circulating medium operates to increase the supply of loanable capital, to depress interest rates, and thereby to attract money to other countries. Metallic money is the only money acceptable for export, and it would be necessary to present notes for redemption in coin in order to meet the demand for exportable currency.

When the deposit system is introduced, another element enters into the regulation of the volume of bank notes. If the supply of currency in the hands of the people becomes large, they begin depositing both notes and coin to their credit in the banks. Notes thus received on deposit are retired and are not reissued unless there is a demand for discounts. An excess of currency in circulation is thus rectified by the reduction of the notes in the hands of the public. The deposit constitutes an obligation of the bank, the same as the notes, and requires a sufficient cash reserve to provide for its payment on demand. The conversion of the note liability into a deposit liability prevents further issues of notes, if the reserve has been reduced nearly to the minimum limits required by law or by sound banking policy. This is usually the case when note issues tend to become excessive. Thus, in any given community, a combination of causes operates to keep a redeemable bank-note currency within the limits set by the requirements of business at any particular moment. An expanding volume of trade results in an expansion of note issues, in the form of loans, while a contracting volume of trade brings notes daily into the bank in payment of obligations which are not renewed. A contracting volume of trade also relaxes the demand for currency and increases the accumulation in individual hands, from which it is promptly carried to the banks to be deposited.

The automatic operation of a banking currency not only keeps the circulation within a country within limits adapted to business needs, but affords the means of keeping its commercial operations in harmonious relations with those of the world. The operation of the foreign exchanges comes into play when there is a greater accumulation of circulating capital in one community than another. The market for such capital is governed by the discount rate. If there is, for instance, an excess of capital upon the London market, the offerings exceed the effective demand, and under the law of supply and demand the rental price of circulating capital falls. Such conditions create an inducement to transfer capital to other markets, where a higher price is paid for its use. This transfer (under the supposed conditions of the absence of other banking credits) would have to be made in metallic money. The banks are the reservoirs of metallic money and, if other means of transferring capital had been exhausted, their notes would be presented for redemption in gold, until the point was reached where there ceased to be any excess in the supply of capital at home over that in foreign markets, and discount rates again tended to become uniform. The volume of the notes in circulation in the exporting country would thus be reduced by the amount returned to the bank to obtain metallic money for export.

The conception which has occasionally prevailed, that bank notes may be issued in excess of the requirements of the community and may expel coin from circulation, is based upon the losses which have been suffered where bank notes have not conformed to the essential conditions that they shall be redeemed in coin on demand and be secured by commercial assets. The issue of notes upon any other basis than commercial assets tends to separate them from commercial business and to deprive the bank-note currency of the elasticity which it derives from such a connection. Prof. Price, in answer to the question, "In what numbers will convertible bank notes circulate?" makes this answer:*

> "The answer is the same as that which has already been given to the parallel question respecting coin. So many bank notes as the public has a distinct want for will circulate, and no more. It is the universal law of all commodities in use, the law of demand and supply. Neither bankers, nor Parliament, nor suspensions of the Bank Act, nor the need of borrowers, but the wants and convenience of the public, its willingness to hold bank notes, the number and amount of the specific payments which bank notes accomplish, with a certain spare stock as for all articles in use, can determine how many convertible bank notes will remain in circulation, and not be returned upon the bankers for payment. This is the truth of truths for a convertible paper currency. This is so obvious a consequence of the fact that bank notes are tools, and that their quantity will be regulated by the specific work which there is for them to do, that it almost seems a platitude to proclaim it."

The basis for the argument of Prof. Price lies in the fact that notes are issued in exchange for commercial paper which is the result of actual business transactions. It is the volume of these transactions which constitutes the primary demand for bank notes, not the bank notes which create transactions.† The notes constitute the supply of circulating capital which responds to the demand. The note is rarely created without demand and thrust upon the market to find an investment. The note, therefore, does not constitute the demand for loans; it is the loans which constitute the demand for the note. The most speculative demands for currency and credit are born on the stock exchanges, and they are satisfied by loans from deposits rather than from the power to create notes. The fault lies in the creation of fictitious and speculative loans rather than in the creation of bank notes. The correct reasoning upon the subject is well expressed by Prof. Courcelle-Seneuil:*

---

* "Currency and Banking," p. 54.

† Every market, having to provide for a certain quanity of exchanges, has need only of a certain quantity of instruments of payment."--Leroy-Beaulieu, "*Traité d'Économie Politique*," III, p. 567. An increased equipment of the tools of exchange will eventually stimulate the volume of exchanges, but the notes can only be issued as demand for them arises.

> "When attentive study is given to the principles of the monetary circulation which have been set forth, the conviction remains that one or several banks of circulation, operating upon a market and committing no faults in their discounts, are never able to issue too many bills, whatever may be their efforts towards this end, because their issues have a natural and necessary limit. It may be concluded directly and absolutely that, if banks commit faults, it is always in their investments and never in their borrowings by notes or otherwise."

The greatest danger of excessive speculation is found in a rigid currency issued by the Government rather than in redeemable notes issued by banks. A Government paper currency is non-exportable and does not respond, either by expansion or contraction, to the requirements of trade. When the demand for currency is great, such money is often inadequate; when the demand relaxes, such money is excessive in volume and is either employed by its holders in speculation or presses heavily upon the whole volume of the money of the country, with the result of expelling the surplus by the export of gold. The same lack of responsiveness to the needs of trade is the characteristic defect of a bank-note currency secured by Government bonds or other securities which are not commercial in their character and of short terms of maturity. Such a form of security has only an indirect relation to the essential character of the notes as contracts to deliver money. To fulfill such contracts, as Prof. J. B. Say well says, "It is necessary that the bank have in its possession not merely securities of thorough soundness, but those always available and convertible instantly into money; for a holder of bills who thinks himself likely to be paid in lands or houses will not consent to receive the bills as cash."†

The issue of bank notes upon convertible commercial assets affords, therefore, the best means of giving elasticity to the currency and keeping it adjusted to the requirements of trade. What is meant by this elasticity is well set forth by Prof. Dunbar:‡

> "It means responsiveness to present increase or diminution of demand—the power of adaptation to the needs of the month, the week, or the day, whether rising or falling. * * * Elasticity implies the the operation of counter forces, in a currency as well as in a steel spring. That a currency may be responsive to demand, it is necessary that the forces, tending respectively to expand or to restrict, should be forces at work in the daily business of the bank, where it is brought into contact with the community by the stream of loans, deposits and payments."

THE BENEFITS OF ELASTICITY.

Elasticity is one of the most important qualities of a good currency. This elasticity must be derived, either from such a movement from place to place of a fixed volume of currency as provides the amount required at every given point, or from such a capacity for increase or decrease in volume as meets the changing needs of trade. Experience has shown that a fixed volume of currency is not always equal to the demands put upon it and causes unnecessary advances in the rate for the rental of money. In every country there is usually a much greater demand for currency at certain periods than at others, and this enlarged demand happens to be almost simultaneous in several of the chief civilized countries which deal with each other as reciprocal producers and consumers of food products and finished goods. This special demand is most intense in the autumn, when the cereal crops and the cotton crop are harvested and taken to market. At such times there is not only unusual activity in the money centers, but a pressure for currency in the producing sections, which requires an enlarged supply of the circulating medium if reasonable wants are to be fully supplied. There are other periodical demands for currency which affect banking accounts in a considerable degree, but the movement of the autumn is the most widespread and prolonged. Mr. Jevons, although an opponent of a true banking currency, admitted the periodical character of this pressure in England in an article on "The Frequent Autumnal Pressure in the Money Market and the Action of the Bank of England."* A largely increased volume of exchanges requires an increase in some manner in the medium of exchange. This increase may be obtained either by the mechanism of the deposit and check system, by the borrowing of money by one bank from another, or by the issue of bank notes. In the case of a demand for an increased medium of exchange upon the occasion of special financial operations in the cities, like the issue of a new loan, or the payment of dividends, the medium of exchange furnished by deposits and loans is usually sufficient. How this system operates is thus set forth by the Monetary Commission:†

---

* "*Traité des Opérations de Banque*," p. 224.

† "*Traité d'Économie Politique*," p. 306.

‡ "Quarterly Journal of Economics" (October, 1897), xii, p. 14.

> "The deposit currency by means of which the largest part of our commercial transactions is effected is particularly elastic. It expands and contracts automatically with every change in demand. If additional currency is wanted in a strictly commercial community for any of these extraordinary demands—by a railroad, for example, to provide for the payment of interest on its bonds—it is secured from an existing deposit, or by means of a loan granted in the form of deposit currency against which checks for the interest are drawn; and to the extent to which those to whom the interest is paid likewise make use of the check and deposit system, the whole transaction is carried through without the least trouble or friction."

While the deposit currency thus serves the purposes of the commercial centers, experience has shown that it is not acceptable and sufficient for the needs of the rural districts and especially the producing and laboring classes. In most countries the bank-note circulation expands automatically to meet the demand for a larger means of conducting exchanges. This is not the case in the United States, because of the restrictive character of the note-issuing system. The country banks borrow regularly from the banks of New York and other reserve cities, and are thereby compelled to divide with these central banks the profits of the autumn business and to charge higher rates than would be the case if they could from their own resources provide the medium of local exchanges. The accounts of the country banks show a regular increase in the autumn in their loans from other banks, which almost disappears in the spring.* During January and February, the country is usually emptying its idle money into New York; in March there is a slight reaction, lasting only a few weeks, and from May till August, the tide again flows strongly toward New York. With August the turn comes, and the movement to the interior is again strong and continues until December.† The effect of the withdrawal of capital from the reserve cities is often disastrous to financial operations in these cities. This demand has to be met mainly in currency, which the New York banks are required to hold as a reserve to the amount of twenty-five per cent. of their deposits. Their losses of currency reduce their reserves and at periods of the greatest strain have often reduced them below the legal limit.‡ This need not have occurred if greater freedom of note issue had been given to the National banks. They would then be able to meet demands for currency as they are met in Scotland and Canada, without the impairment of their reserves or the undue increase of their discount rates. The manner in which the note issues of the Scotch banks respond to the necessity for a larger medium of exchange is thus set forth by Mr. Gilbart: ‖

---

* "Investigations in Currency and Finance," p. 160.

† Report, p. 311. Statistics of payments of interest and dividends on railroad bonds and stocks in the United States in 1897, furnished to the Monetary Commission by "The Commercial and Financial Chronicle" showed such wide variations as $67,000,000 in January and $14,500,000 in February.

> "In Scotland the lowest point of circulation is in March, and the highest in November. The advance, however, between these two points is not uniform—for the highest of the intervening months is May, after which there is a slight reaction; but it increases again until November, and falls off in December. The reason of the great increase in May and November is, that these are the seasons for making payments. The interest due on mortgages is then settled, annuities are then paid, the country people usually take the interest on their deposit receipts, and the servants receive their wages. There are frequently large sums transferred by way of mortgage. It is the custom of Scotland to settle all transactions, large as well as small, by bank notes—not by checks on bankers as in London. It is remarkable that these monthly variations occur uniformly every year, while the amount of the circulation in the corresponding months of different years undergoes comparatively little change.
>
> The circulation of Scotland is at its lowest point in the month of March, is higher in July, and reaches its highest point in November. In the corresponding months of different years there is but little deviation in the amount of the circulation. These facts prove that the circulation of Scotland does not produce any effect upon prices, nor, consequently, upon the foreign exchanges. It is hardly necessary to adduce evidence in proof of the fact that the prices of commodities do not go on increasing from March to November in every year; and if they do not they cannot be regulated by the currency."

---

* "The National banks located in the Southern States have an aggregate capital of $68,680,000. On October 6, 1896, they had borrowed largely from banks in the East, to assist in handling the cotton crop, $13,548,000. On March 9, following, these loans had been reduced to $2,516,200. They succeeded in borrowing for a part of their needs, but commercial necessities required more. With proper banking facilities the necessity for such borrowing now existing would be reduced to a minimum."—"Annual Report of the Secretary of the Treasury (Lyman J. Gage), on the State of the Finances, 1897," p. LXXVIII.

† Report of the Monetary Commission, p. 320.

‡ Thus Mr. A. D. Noyes says in regard to the pressure of 1893: "On the New York banks the strain was particularly violent. During the month of June, the cash reserves of banks in that city decreased nearly twenty millions; during July they fell off twenty-one millions more. The deposits entrusted to them had been loaned, according to the banking practice, in the Eastern market; their sudden recall in quantity forced the Eastern banks to contract their loans immediately."—"Thirty Years of American Finance," p. 191.

‖ "Principles and Practice of Banking," II, p. 216.

The Canadian bank-note system is also directly responsive to the demands of production and exchange. Its fluctuations are thus set forth by Mr. Root:*

> "As surely and as regularly as the autumn months come around and the inevitable accompanying demand for additional currency begins to manifest itself, does the circulation of the banks automatically respond; the expansion ordinarily continues until about November, when a maximum, some twenty per cent. in excess of the normal circulation during the summer months, is reached. In consequence of this prompt and adequate response to every legitimate demand of commerce for more of the media of exchange, the conditions in Canada are quite different from those to which we, in this country, are accustomed. As a prominent banker has recently stated it, 'Panics for fear of stringency are thus unknown. The Canadians never know what it is to go through an American money squeeze in the autumn.'"

The proof of this responsiveness of the Canadian currency to the needs of business is afforded by the figures of the circulation. While the Canadian banks are permitted to issue circulation to the amount of their capital, which was $63,241,533 on December 31, 1898, their note issues rise during the period of special demand for a circulating medium and are promptly reduced again under the operation of the redemption system when this demand declines. The circulation varies by twenty per cent. in the course of the year. This was the case in 1892, when the minimum circulation of May was $31,383,000 and the maximum circulation of October was $38,688,000, only to fall in the following May to $31,927,000. The circulation touched even lower points under the influence of the dull business of 1894 and 1895, but rose on October 31, 1898, to $42,543,446 to fall again on March 31, 1899, to $38,409,227.

THE "CURRENCY" AND "BANKING" PRINCIPLES.

The question has been raised by a number of economists whether the saving of capital due to the employment of a bank-note currency is not obtained at the sacrifice of safety and the real economic interests of the country where such a currency is employed. The fact that systems of bank-note issues have in many cases proved defective has led to the conclusion that the theory of a banking currency was itself unsound. The subject was discussed with great warmth in England during the first half of the present century and the lines of battle were then drawn between the advocates of what was called the "currency principle" on the one hand and the "banking principle" on the other. The advocates of the currency principle laid down the proposition that bank notes should not be issued beyond the amount at which they would fluctuate exactly as a metallic currency would fluctuate. This limit they found in the issue of notes simply as certificates, fully covered by coin, or only in such amounts without a metallic cover as would constitute the minimum amount below which the circulation was never likely to descend. It was contended that credit is unduly stimulated by the issue of paper notes as a substitute for metallic money, and that in such cases "the whole money of the country, paper and gold, undistinguishably, is depreciated in comparison with the money of other countries." †

It is necessary in order to sustain an indictment against the value of a bank-note currency in promoting the convenience and the real economic interest of a community either to show that all credit is in itself injurious to the community or that bank notes so far differ from other forms of credit that they threaten a peculiar and excessive danger. The first point hardly calls for serious discussion. The abolition of all forms of credit in business transactions would mean the arrest of the mechanism of modern exchange and the restriction of production within very narrow limits. The consummation of every transaction for cash without contracts for future delivery would require an immense volume of money and would mean also that the prices of all commodities and services would be governed by the demand and supply of the moment instead of by sound judgment as to future supplies. Contracts to pay money for future production would become impossible, and prices and wages would fluctuate violently under the influence of temporary causes, without the steadying effects which would be given by the ability to make contracts for future performance. Nearly all forms of credit are in the nature of contracts to deliver money at some future time. This is the nature of a bank note, a deposit account with a bank, a bill of exchange, and a promissory note. The first two forms differ from the others in the fact that the holder of the contract has the power to demand performance at any time, at his pleasure, instead of on a date fixed by the maker of the contract.

---

* "Canadian Bank-Note Currency," "Sound Currency" (December 15, 1894), II, p. 322.

† F. A. Walker, "Money," p. 430.

That there are certain risks involved in modern credit transactions cannot be denied. Production, where it is carried on in anticipation of future demand, may be carried farther in certain cases than if it were carried on only in response to immediate orders; but all such risks are controlled and reduced to a minimum by the regulating force of prices throughout the world and the existence of organized markets, especially on the produce and stock exchanges. Gen. Francis A. Walker, one of the most intelligent and candid of the opponents of a banking currency, dismisses the possibility of risk where paper is reasonably secured by the following comparisons: *

> "Yet though the issue of bank notes on a partial basis of specie under the doctrine of chances, is always, in the nature of the case, at a certain risk, this does not constitute a fatal objection to paper-money banking, if it be otherwise desirable. Men and communities rightly take the necessary risk of collisions and boiler explosions for the sake of the saving in time and the gain in power which they derive from the use of steam cars and steamboats. So it might be with disasters to which, from the fault of managers or through causes that could neither be controlled nor anticipated, paper-money banking should be found subject."

Dismissing, then, the proposition that all forms of credit should be abolished in a modern industrial community, it becomes necessary to examine the proposition that bank notes constitute a form of credit involving peculiar dangers. The question was disputed in the discussion over the English Bank Act during the first half of the century, whether a bank-note currency fluctuated in exactly the same manner as a metallic currency. Some of the advocates of such a currency contended that its fluctuations were regulated by precisely the same laws and in precisely the same manner as a metallic currency—that an excess in the volume of currency would correct itself by the presentation of bank notes for redemption and the exportation of the surplus in the precious metals. Other advocates of a banking currency contend that it acts as a cushion for the violent fluctuations in the

---

* "Money," p. 411.

supply of money caused by abnormal demands for the precious metals—that, in fact, a bank-note currency need not and ought not to fluctuate, as expressed by Mr. Nicholson, "exactly as a currency composed of coin only would have fluctuated under similar conditions." The contention of the opponents of a banking currency has been that it would not fluctuate in response to the movements of the precious metals and that such fluctuations were necessary in order to apply the corrective influence of the foreign exchanges to excessive issues of paper.

There are elements of truth in the position taken by each side in this controversy. It is highly desirable that a bank-note currency should be responsive in some degree to the play of the foreign exchanges and to the volume of metallic money. Entire absence of such responsiveness would result in the same dangers as issues of inconvertible paper money. It does not follow, however, that a bank-note currency should be governed absolutely by the movement of the precious metals in the same degree as if the paper notes were themselves coined money. The law of marginal utility sends the notes where metallic money might not go, thereby equipping a country more efficiently with the tools of exchange, and the demands for metallic money are so peculiar and specific in their nature that they are often influenced by causes which ought not to be permitted to operate at once and with full effect upon the domestic circulation of a country and in fact do not thus operate upon a properly reglated bank-note currency.

Nearly all the various forms of banking credit are contracts to deliver metallic money. They are promises to pay money at some future time. Prof. Jevons, an able advocate of the currency principle, says:*

> "Every one who promises to pay gold on a future day thereby increases the anticipated supply of gold, and there is no limit to the amount of gold which can thus be thrown upon the market. Every one who draws a bill or issues a note, unconsciously acts as a 'bear' upon the gold market. Everything goes well, and apparently prosperity falls upon the whole community, so long as these promises to pay gold can be redeemed or replaced by new promises. * * *
>
> But foreigners will not hold such promises on the same footing; and, if the exchanges are against us, the metallic, not the paper, part of the currency will go abroad. It is at this moment that bankers will find no difficulty in expanding their issues, because many persons have claims to meet in gold, and the notes are regarded as gold. The notes will thus conveniently fill up the void occasioned by the exportation of specie; prices will be kept up, prosperity will continue, the balance of foreign trade will be still against us, and the game of replacing gold by promises will go on to an unlimited extent, until it becomes actually impossible to find more gold to make necessary payments abroad."

These propositions contain some truth. The difficulty is that if they constitute fatal objections to bank-note issues, they also constitute objections to all other contracts for the delivery of metallic money. The condition assumed by Mr. Jevons, in which notes would continue to replace gold until no more gold remained for export, would occur only if reasonable reserves were not kept against bank-note issues. The situation would simply be that more contracts for the future delivery of money had been made than could be fulfilled. The money market would be in the same condition as the wheat market, when demands for the performance of contracts for future delivery exceeded the capacity of brokers to make delivery. In the case of money, however, the difficulty of creating a corner would be infinitely greater than in the case of wheat or any other single commodity, because the supply of money in the world is subject to narrow fluctuations and is distributed among many commercial centers, where it is held subject to rental at a price. Sound banking and sound methods of credit undoubtedly require that reasonable regard should be had in the issue of instruments of credit to the ability to fulfill the contracts which are made. This is equally true of other commodities as well as instruments of credit. There are special reasons why the State is justified in requiring guarantees of solvency from those who deal in money, but it is not necessary that these conditions should go so far as to forbid contracts in the form of bank notes for the future delivery of money.

---

* "Money and the Mechanism of Exchange," pp. 315–316.

Mr. Jevons criticized those who advocated the adoption of a true banking currency in England, upon the ground that if they wanted currency, they might obtain gold by giving up capital for it. He declared: *

> "This metal, again, is only to be had, in the absence of gold mines, by that state of foreign trade which brings it, and does not drain it away again. The principal currency, in short, must be regarded as a commodity, the supply of which is to be left to the natural action of the laws of supply and demand. The unrestricted issue of paper representative notes produces an artificial interference with these natural conditions."

The words "natural" and "artificial" have no place in such a discussion. The issue of paper instruments of credit is just as "natural" an element of modern commerce as the evolution of stamped disks of gold as the sole standard of value. It is true that the use of paper credit modifies to some extent the movement of the precious metals which might take place if no such instruments existed, but the one influence is no more "natural" or "artificial" than the other. It is because the use of such instruments permits economies in the use of gold, and therefore interferes with "the natural action of the laws of supply and demand" for gold, that these instruments are of value to the community. The opening of railways interfered with "the natural action of the laws of supply and demand" for seats in post coaches, but that constitutes no argument for the retention of the "natural conditions" of the old mode of conveyance. Mr. Jevons appears to share the opinion of General Walker, that the power to borrow notes from a bank is an encouragement to speculation. They reason, more or less unconsciously, as though the entire profit derived from the economy of note issues went to the borrower of the notes, instead of being spread over the whole volume of banking operations. The borrower of notes has to pay for them in the form of discount. If the public, in a period of speculation, is willing to pay for the use of currency by high discount rates, they will be able to obtain it in the form of gold. There is nothing in the possession of a gold currency which prevents the wildest speculation. Gold can be obtained at a price, if it is required, in any country where the speculative spirit runs high, and experience has shown that other forms of credit are quite as useful in promoting speculation as the issue of bank notes. The rental price of gold might be slightly higher than the price of bank notes, so far as either was required in speculative transactions, but the difference would hardly be such as to check the demand for money during a period of speculation.

Bank notes may facilitate speculation just as other forms of credit may. The proposition that credit should for this reason be suppressed has already

---

* "Money and the Mechanism of Exchange," p. 313.

been dismissed with the consent of Gen. Walker. As a matter of fact, it is generally admitted, even by critics of a bank-note currency, that notes are not the primary cause of speculation. It is simply contended that they provide it with a convenient tool. But deposit accounts, the check system, and certified checks also provide such a tool of a much more efficient character and in much greater volume than bank notes.* These other instruments of credit constitute the mechanism of modern wholesale transactions and speculation upon the produce and stock exchanges. Money, even where bank notes are included under the definition of money, forms but a trifling percentage in the settlement of these transactions. The issue of bank notes, therefore, cannot contribute in any material degree to promoting speculation in the great commercial centers as credit is at present organized.

What, then, is the true law of the operation of bank notes upon credit and the movement of the precious metals? If bank notes do not contribute materially to sustaining speculation, what aid do they give to the business community? The answer to these questions is derived largely from the law of marginal utility which, under the clear reasoning of the Austrian and German economists, has solved with precision so many economic problems. Bank notes do not respond directly and precisely to the movements of the precious metals, because they find their employment to a large extent upon the margin and beyond the margin of the utility of metallic money. If, for illustration, notes may be issued upon a reserve of fifty per cent. in coin, the community gets the use of twice the amount of currency which it would otherwise obtain at the same cost. A community capable of investing its capital in money to the extent of say $50,000,000 would thus be able to command the use of $100,000,000 in well secured circulating notes. If the law required a reserve of fifty per cent. against note issues and the notes outstanding were constantly at the maximum allowed by law, a demand for gold from abroad might lead the paper currency to fluctuate exactly as the metallic currency over its whole volume.

The usual conditions of banking and credit, however, even where fixed metallic reserves are required, do not involve the issue of notes to the utmost limit allowed by law. Such issues occur only in the poorer portions of the community, where the demand for a tool of exchange exceeds the amount of capital available for investment in such a tool. In the great commercial centers there is usually a surplus of metallic money, whose movements backwards and forwards from country to country do not necessarily involve a corresponding reduction of the domestic circulation. The domestic circulation, especially in the districts removed from the commercial centers, remains unimpaired, while the portions of the community which are engaged in great speculative movements surrender gold or borrow it back, according to the decisive question whether the price they get in the one case corresponds to the disadvantage of being without it, or the price they pay in the other corresponds to the advantage of having it. In these transactions a fraction of one per cent. may decide the question whether gold shall move from one commercial center to another. There may be a sudden call in one of these centers for the execution of contracts to deliver gold. There is no reason why these conditions should affect the domestic circulation of the country, except so far as they indicate that the entire structure of credit has been unduly expanded. In that case the pressure will be felt upon all the issuing banks and a contraction of note issues will follow.

---

* The practice of certifying checks where the maker of the check had not even a sufficient banking credit to cover it attained considerable development in New York during the decade from 1860 to 1870, and became an efficient aid in stock speculation. The Legislature of New York passed a law to govern the subject in 1869 and the Federal Congress in 1882 imposed penalties for 'over-certification,' but neither of these laws sought in any way to restrict certification where the maker of the check had a legitimate credit for the amount.—*Vide* Bolles, "Financial History of the United States," III, pp. 365-67.

It has to be borne in mind that the transfer of the precious metals is not governed purely by the state of trade. The problem of international exchanges is no longer the simple shipment of gold to cover an excess of importations of merchandise. Securities often take the place of gold as payment, bills of exchange are sent to the country where they mature or are held in the creditor country pending maturity, according to the rate of interest in either country, and gold itself is loaned on credit where its rental is highest. This being the case, a special demand for gold is created on the one hand, which is not dependent upon the domestic transactions of any one country, and a necessity is created on the other hand for a domestic medium of exchange which is not controlled absolutely by these temporary and almost arbitrary movements of the precious metals. Every community ought to take measures to maintain its solvency by retaining a certain minimum supply of the precious metals. This is a matter of sound banking policy or of government regulation, but it is very far from involving the requirement that the bank note shall be destroyed as an instrument of credit and that the surface of the domestic circulation shall be swept by every tempest upon the stock exchanges which affects the rental price of gold. The steadying and beneficial operation of a bank-note currency in these respects is thus set forth by Prof. Cauwes:*

> "The entire community profits by issue, at first because the circulation of bills relieves it from the purchase of a great quantity of metallic money, and then because a mixed circulation (of bullion, coin and paper) is better regulated, according to the movements of foreign commerce, than a circulation exclusively metallic. If gold and silver were the only money, it would result that every time the importations of foreign goods were in excess of the exportations, money going out of the country would subject the domestic market to a crisis having the consequence of a sudden rise of prices. Paper money acting as an auxiliary to metallic money in quantities varying according to the needs of business, averts the monetary crisis which the operation of the foreign exchanges might otherwise occasion and thus gives more stability to commerce."

The movements of a bank-note currency, therefore, do not and need not correspond precisely to the movements of the precious metals in order to insure healthy financial conditions. The advantage of such a currency will often be found in this very divergence from mathematical relations to the supply of metallic money. In one community the demand for tools of exchange, perhaps for only a temporary purpose, may strain the note-issuing power to the maximum limit of safety. In such a community the power to issue notes will be of the highest value, because the desired service to trade can be rendered for a fraction of the cost of bringing coin or bullion into the community for the full amount of currency required. In another community the lethargy of transactions, or the preference for other forms of credit, may reduce the volume of outstanding notes to nearly the level of metallic reserves or even below that level. Such a condition may permit the surrender of coin or bullion to a community where the supply is insufficient, but without destroying the power to expand the note issue within reasonable limits when there is an increased demand for the medium of exchange. The greatest use and highest value of the note-issuing function will be found on the margin where coin cannot go because it is too costly. If the blanket of a metallic currency will spread over only those portions of the community well equipped with surplus capital, the use of the note-issuing function will spread a useful fringe of benefits over a wider area and protect the entire community against the inconveniences of a sudden contraction of the metallic cover.

---

* "*Cours d'Économie Politique*," II, p. 309.

Value of Note Issues in New Countries.

There are two classes of conditions under which the privilege of issuing bank notes under the minimum of restrictions is of great service. The first class of conditions are those prevailing in comparatively undeveloped countries, where the supply of capital is not equal to the demand for it for creating the machinery of production and means of transportation and where banking offices are widely separated. So pressing is the need for an economical paper currency under such conditions, that it has sprung into being beyond the law and outside the law where no legal provision has been made for it. One of the most interesting cases of a successful currency of this sort, which was maintained for several years in the face of hostile legal enactments, was what was known as "George Smith's money," an episode in the early history of Wisconsin. Wisconsin in 1838, like most of the newer Territories of the United States, was without a sufficient metallic currency and without an organized system of banks of issue. The creators of the new money were two Scotchmen, George Smith and Alexander Mitchell, who had been educated in the efficiency of bank-note issues in their native country. George Smith obtained from the Territorial Legislature of Wisconsin a charter for the Wisconsin Marine and Fire Insurance Company. The bill became a law on February 28, 1839, and authorized the company to "make insurance upon life or lives and employ such capital as may belong or accrue to said company in the purchase of public or other stock, or in any other moneyed transaction or operations for the sole benefit of the said company." There was a general clause, usually incorporated in charters, that "nothing herein contained shall give the said company banking privileges." This clause was practically ignored and the banking feature of the business done by the company soon overshadowed the insurance feature.

The company advertised to "receive money on deposit and transact other moneyed operations, in which, by their charter, they are allowed to engage." Certificates of deposit were issued in sums of $1, $3, $5 and $10, in the form of bank bills. These certificates met a popular want and they were soon found in people's pockets all over Wisconsin, Illinois, Iowa, Missouri and Michigan. They were redeemed in specie at the central office in Milwaukee, and in New York exchange at the current rate through agencies in Chicago, Detroit, Buffalo, Galena, Cincinnati and St. Louis. The success of "George Smith's money" was so great that the jealousy of other bankers was incurred and repeated efforts were made to break down the bank. There was a fight running over several sessions of the Wisconsin Legislature to have the charter forfeited or repealed, but in these debates no question was raised in regard to the solvency of the institution, and it was asserted without contradiction that its notes were as "good as gold." When the other banks, the day after Thanksgiving in 1849, attempted to force the bank to suspend specie payments by gathering and presenting for redemption all the notes they could find, Mr. Mitchell directed that the bank be kept open until a late hour of the evening and that depositors and note holders be paid as rapidly as they presented themselves. Every note presented was redeemed even before the reserve supply of cash arrived which was ordered from Chicago. The issues of certificates at this time had reached about $1,000,000, having steadily grown in amount from the organization of the bank. The people of Wisconsin voted down a constitution which prohibited bank-note issues in the State, largely because of their sympathy with the Mitchell bank. When finally Wisconsin was admitted to the Union in 1848, a general banking law was passed, under which the Wisconsin Marine and Fire Insurance Company reorganized. The advantages of this currency, the spontaneous outgrowth of business needs, have been graphically set forth by Mr. Root: *

> "It is obvious that 'George Smith's money,' which played so large a part in the early settlement of the Northwest, took the place of other kinds of money, and especially of specie, for which the products of the country would have otherwise been sold. On condition that the currency should always be redeemed in specie, this was a good thing for the holders of Smith's money as well as for Smith; that is, it was an advantage to the public. It was an advantage because it was more convenient to handle and carry and count, while it performed all the local exchanges equally well. It introduced the principle of barter on a large scale. Whatever work bank checks would do in the city of Milwaukee, George Smith's money would do over the greater part of Wisconsin, Illinois, Missouri and Iowa. It enabled the local exchanges to be carried on without specie. * * *
>
> In the fall, when the crops began to move, there was no lack of money for legitimate trade, because it was as easy to put out these certificates at one time as at another. In the winter, when lake navigation was closed, the certificates answered all the purposes of a local circulating medium. In the spring, when the steamboats began to move, bringing new settlers and cargoes of goods, the certificates came back to headquarters mainly for the purchase of New York drafts, after which they took their usual round again."

A like device for escaping the restrictions imposed by a too narrow note-issuing system is that of the Cheque Bank in England, which was instituted after the Bank Act of 1844. Money was received by this bank on deposit, and books of checks were issued for even denominations, which might be filled in for less than the denomination, but not for more. The face value of the checks issued did not exceed the depositor's credit, so that the receiver of such a check had the assurance of the bank that the depositor's account was not overdrawn. Such checks were made payable by the Cheque Bank only through some other banker and not at the counter of the bank, thereby escaping the prohibition of the law against promissory notes payable to bearer on demand. The checks passed between individuals for cash, and the Cheque Bank established relations with some 1,500 domestic and foreign banks which agreed to receive and cash its checks. Prof. MacLeod expressed the opinion that these checks, if not a violation of the letter of the law, were at least a violation of its spirit, and, if not interfered with, would open the door wide for any amount of issues of checks capable of circulating as money,

---

* "Sound Currency" (April 15, 1898), V, p. 120. All the facts given are from Mr. Root's paper.

by any bank in the Kingdom.* In this view he is correct, and such a device would undoubtedly have been widely adopted if the education of the English people in the use of other forms of credit had not made it comparatively unnecessary. The success of the Cheque Bank well illustrates the principle that the real needs of a community will usually find spontaneous relief along the lines of least resistance and will often circumvent repressive laws.

The issue of bank notes under the minimum of restrictions is of peculiar value in periods of panic, even in countries otherwise well equipped with the mechanism of credit. The demand on such occasions is for some article which is readily exchangeable and which will be accepted in the fulfillment of contracts to deliver money. Such contracts under normal business conditions are so generally cleared against each other that their fulfillment is not often demanded. These conditions change when confidence is impaired, because a great void is then caused in the usual mechanism of credit, which bank notes are called upon to fill. The issues of bank notes which then occur are abnormal in their character, are not required beyond the period of acute pressure for currency, and may be issued by a sound institution without much regard to the exact proportion of notes to the metallic reserve, so long as the reserve is sufficient to meet all demands and inspire confidence in the solidity of the institution. It is the recognition of the peculiar character of this demand for currency in periods of panic which led to the provisions of the charters of the Imperial Bank of Germany, the Austro-Hungarian Bank, and the Bank of Japan, that notes might be issued without the increase of the metallic reserves when they paid a tax to the Government at the rate of about five per cent. a year. The undue restriction of the normal note-issuing function in these countries has compelled resort to this power on many other occasions than those of actual panic,† but upon all these occasions the power to issue notes, even under a heavy penalty, has proved useful to the business community.

The utility of the power to issue bank notes without fixed limits in meeting the abnormal demand of a panic has been clearly shown on all of the occasions of crisis which have swept the London money market within the present century. The Bank of England was strong enough, only a short time after its resumption of cash payments, to stay the panic of 1825 by the free issue of its own notes. The display of stacks of £1 notes upon the counters of the Gurneys at Norwich was sufficient to arrest the run upon their bank.‡ The Bank came to the rescue of the money market in a similar manner in the crisis of 1847, again in 1857, and again in 1866. There never was a question on any of these occasions of the value of the notes of the Bank as the equivalent of money. The only question which arose, under the charter of the Bank, after the restrictive act of 1844, was the authority to issue a sufficient amount of notes to meet the demands of the commercial community. The Bank Act greatly hampered the issue of notes, but authority was given to the Bank by the Government on each of these occasions to disregard the limits of the law and issue as many notes as might be required. The mere fact that the authority to issue notes was given, and that currency could be had by solvent borrowers, was sufficient to stay the tide of panic in 1847. Notes which had been hoarded, under the impression that the limit of issues fixed by the law would soon be reached, came pouring from their hiding places, gold which had been stored in deposit vaults was returned to the banks for deposit, and both the metallic and banking reserves of the Bank of England rapidly rose to safe proportions. A similar experience accompanied the crisis of 1857, when £2,000,000 in notes were actually issued above the legal limit. The crisis of 1866 was met in a similar manner. The Bank of England could hardly have continued to meet its liabilities for another day if the Chancellor of the Exchequer had not announced in the House of Commons on the evening of May 11—"Black Friday"—that the Government had addressed a letter to the Bank authorizing the suspension of the note limit.* The panic was again checked by the knowledge that a medium of exchange could be obtained by solvent borrowers.

---

* "There can be no possible doubt that these instruments, these crossed bank notes, are an utter and complete violation of the manifest purpose and intention, not only of the Bank Charter Act, but of all our monetary legislation for the last century. For what is easier than for the bank and its customers to agree to make these checks for £1, and put them into circulation? Then we have at once £1 bank notes. So also the checks for 10s. and 5s. are the old silver notes back again. If the Cheque Bank may do this with impunity, why may not every other bank in the Kingdom do the same?"—"Theory and Practice of Banking," II, p. 376.

† In Germany notes were issued subject to the tax during sixteen weeks of 1898, and such issues stood on December 31 at 282,955,280 marks ($70,000,000).

‡ MacLeod, "Theory and Practice of Banking," II, p. 118.

The power to issue notes without a rigid limit, even if they are restricted to a fixed relation to the metallic reserve, is of value in periods of panic. It usually inspires confidence at such times for the great note-issuing banks to borrow gold from abroad. This was done by the Bank of England on the occasion of the Baring failure in 1890, when £3,000,000 was obtained from the Bank of France upon the security of exchequer bonds and £1,500,000 was obtained from St. Petersburg. The crisis of 1890 was prevented from degenerating into a panic by a combination among the leading banks,† so that there was not much special call for currency to fulfill money contracts, and there was no tendency to withdraw deposits from the banks because of distrust. If such a panic had occurred, accompanied by a demand for deposits from the banks, the importations of gold would have proved a defective as well as insufficient resource for meeting the demand. It would have been otherwise if the gold had been availed of under such circumstances as a reserve against note issues to the amount of twice or three times its value. The potency of the gold would then have been doubled or trebled in amount and its real efficiency would have been increased in a much greater ratio by reason of the general preference for notes over coin.

CHARLES A. CONANT.

---

*Gilbart, II, p. 354. One of the representatives of the joint-stock banks is reported to have said to the representative of the Bank of England, at a meeting of the leading bankers just before midnight, before the limit of note issue was removed, "I can draw a couple of checks to-morrow morning which will shut you up at once."

†Mr. Lidderdale, the Governor of the Bank of England, secured an agreement among the joint-stock banks of London, the leading provincial banks, and the joint-stock banks of Scotland to guarantee the liquidation of the Baring indebtedness to the amount of £15,000,000. *Vide* MacLeod, "Theory of Credit," II, p. 836.